JOYPI

Experimental and Education Case

With the Joy-Pi, Joy-IT has developed a comprehensive education solution and incorporated its many years of experience in the production of open source electronics. The Joy-Pi is an experimental case based on the Raspberry Pi and is ideal for the entry into electrical engineering and programming.

The sophisticated case system offers a perfect all-in-one environment and puts an end to many fiddly small parts solutions and cable chaos on the worktable.

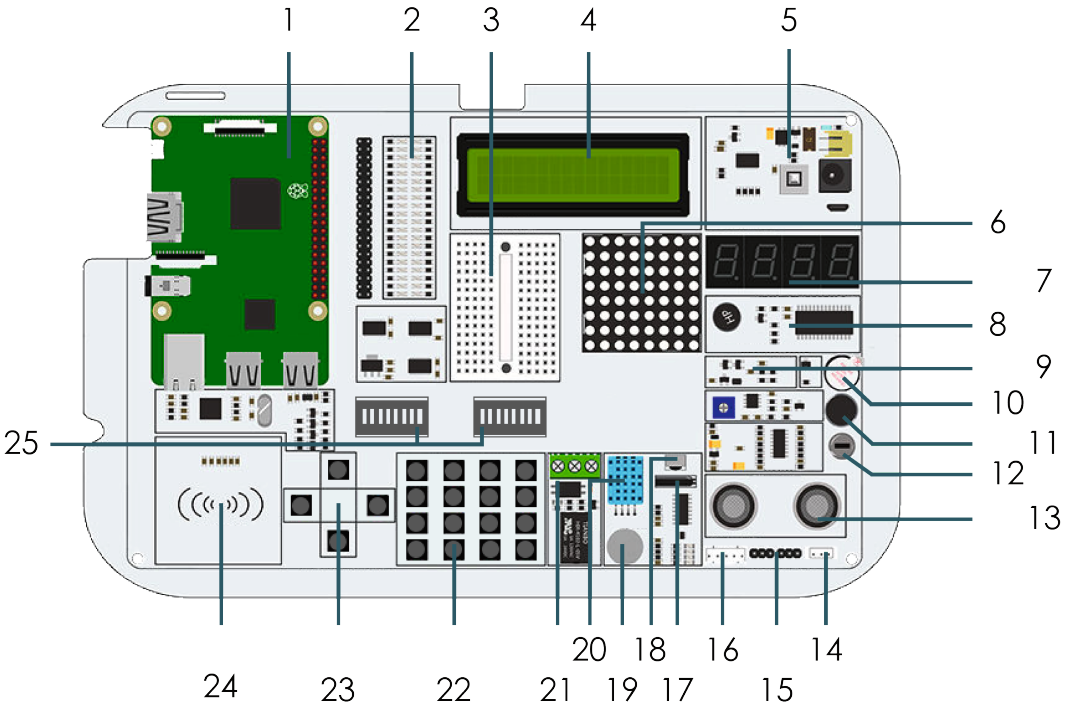
KEY FEATURES	
Weight	2600g
Dimensions	27 x 19 x 7cm
Scope of Delivery	JoyPi case, BT keyboard, microSD card (32GB), Power supply, card reader, RFID card & clip, Stepper Motor, Servo Motor, IR Remote Control, GPIO Cable
Compatible to	Raspberry Pi 2B, 3B, 3B+,4B

TECHNICAL FEATURES	
Display	7“ Touchscreen Display Resolution: 1024x600
Camera	2MP Camera
Special Functions	Completely equipped set, already integrated in a case
Included Lessons	21, suitable for beginners and advanced

ADDITIONAL INFORMATION	
Article No.	RB-JoyPi
EAN	4250236817330
Duty No.	8473302000

INCLUDED ACCESSORIES & MODULES	
Accessories	Mini Keyboard & USB receiver, power supply, GPIO cable, infrared sensor, microSD card (32GB), servo motor, stepper motor & accessories, RFID chip, RFID card, USB cable, remote control
Sensors	Light sensor, Sound sensor, Motion sensor, Ultrasonic sensor, Tilt sensor, Infrared sensor, Touch sensor, DH11 Temperature & humidity sensor, RFID module, Tilt sensor
Displays	7“ Touchscreen LCD Display, 8x8 LED Matrix, 16x2 LED Module, 4-digit Segment Display
Buttons	Programmable 4x4 button matrix, 4 independent buttons, 16 switches
Motors	Servo control, servo motor, stepper motor
Other Modules	GPIO LED Indicator, Breadboard, Vibration Unit, Buzzer, Relay, 2MP Camera

SCHEMATIC DIAGRAM



1	Raspberry Pi
2	GPIO LED Display
3	Breadboard
4	16x2 LCD Module (MCP23008)
5	Power Supply
6	8x8 LED Matrix (MAX7219)
7	7 Segment LED Display (HT16K33)
8	Vibration module
9	Light sensor (BH1750)
10	Buzzer
11	Sound sensor
12	Motion sensor (LH1778)
13	Ultrasonic sensor

14 / 15	Servo-Interfaces
16	Stepper motor interface
17	Tilt sensor (SW-200D)
18	Infrared sensor
19	Touch sensor
20	DH11 Sensor
21	Relais
22	Button-Matrix
23	Independent buttons
24	RFID Module (MFRC522)
25	Switch

INCLUDED LESSONS
Using the buzzer for warning sounds or notifications
Controlling the buzzer by using the keys
How a relay works and how to control it
Send a vibration signal with the vibration module
Detecting noises with the sound sensor
Measuring brightness with the light sensor
Measuring room temperature and humidity
Detecting movements with the motion sensor
Measuring distances with the ultrasonic sensor
Controlling the LCD display
Reading and writing RFID cards with the RFID module
Use a stepper motor and perform movements
Control of servo mtoors via servo interfaces
Controlling the 8x8 LED matrix
Controlling the 7-segment display
Detect a contact with the touch sensor
Detecting tilts with the tilt sensor
Using and c ontrolling the button matrix
Controlling and using the IR sensor
Create your own custom circuit with the breadboard
Photographing with the Raspberry Pi camera

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